

the phenomenon usually attributed to the interference of the two rays which, distinct at incidence, coincide on emergence. However this may be, the fact can have nothing to do with the present question. It is impossible, when the most refined spectroscopic observation hardly gives us one octave, that the rainbow should disclose three or four.

Hyères, Jan. 25

C. J. MONRO

Flight of Birds

WITH reference to an abstract of a paper by Mr. Southwell on the flight of birds, which appeared in your paper a few weeks back, I venture to make the following note and inquiry.

A late brother of mine who had been round the Cape, and had frequently observed carefully the flight of the albatross, told me that though he had watched individual birds on several occasions for many minutes together, he had seldom or never seen any of them flap their wings. Has this fact been observed by other persons, and if it be authenticated, has Mr. Southwell any explanation to offer?

J. H.

Turdus Whitei

It may interest some of your ornithological readers to know that a specimen of White's Thrush, *Turdus Whitei*, was killed near here on the 7th inst. It was shot by Mr. J. Beadon, of Gotten House, and presented by him to Mr. Cecil Smith, of Lydeard House, for his collection. This is, I believe, the fourth occurrence of this bird in Britain; it is, I think, even less known on the Continent.

W. BIDGOOD

Museum, Taunton, Jan. 15

THE SARS FUND

WE are glad to find that the appeal made in our pages by Mr. Gwyn Jeffreys, on behalf of the family of the late Professor Sars of Christiania, is being warmly seconded in Paris by M. Alglave, the Editor of the *Revue des Cours Scientifiques*. In the last number of the *Revue* Mr. Gwyn Jeffreys' article is reprinted *in extenso*, and an announcement made that subscriptions to the Sars Fund will be received at the office of that journal. But M. Alglave has not waited for the publication of his notice before beginning his good work; he has already collected the sum of 2,026 francs (81*l.*), and publishes with the notice a first subscription-list containing the names of many of the most eminent naturalists in France. We have now the pleasure of giving in our advertising columns a list of the contributions already promised to Mr. Gwyn Jeffreys. Sars belonged to the best type of scientific men, the genuine lover of science, contented to work in obscurity without thought of honours or reward. His family have a special claim to help, inasmuch as the distress in which they are left is not due to neglect or extravagance on the part of the lamented Professor, but is solely attributable to his having devoted himself to studies, which, notwithstanding the most self-denying labours, did not enable him to make any provision for the future. Those of our readers who have visited Norway, who know the genuine unworldly ways of the Norwegians, and who have enjoyed the enthusiastic welcome so readily given to the English, have now a graceful opportunity of reciprocating the kindly feeling shown them by the countrymen of Sars.

NOTES

LORD DE GREY will to-morrow receive the Council of the British Association, as a deputation to urge upon her Majesty's Government the desirableness of a Royal Commission being issued to inquire into the present state of Science in this country.

THE Royal Society and the Royal Astronomical Society have both appointed committees of council, to report upon the steps which it may be desirable to take in connection with the total eclipse of the sun, visible in Algeria, Spain, and Sicily, in December next.

It is proposed to celebrate the fiftieth anniversary of the Royal Astronomical Society by a dinner on the day of the annual meeting, February 11.

THE lectures annually delivered in the theatre of the Royal College of Surgeons were commenced yesterday by Professor Erasmus Wilson, F.R.S., who will deliver six lectures on Dermatology. To illustrate that of yesterday, there were a large number of exquisitely-prepared models, duplicates of those prepared for the Hôpital St. Louis, Paris. Professor Wilson's course will be followed by Professor Flower, F.R.S., Conservator of the Museum, who will deliver 18 lectures introductory to the study of the anatomy of the class mammalia.

THERE is a terrible rumour to which we are compelled to refer, though it has reached us in a—let us hope—doubtful way. The news is, that Livingstone has been murdered and burnt ninety days' journey from the Congo.

THE Zoological Society of London have now in the press a memoir by Dr. O. Finsch, of Bremen, one of their corresponding members, upon the birds collected by Mr. William Jesse during the recent Abyssinian expedition. This memoir, which was read before the society at one of their meetings last year, will appear in their quarto Transactions, and will be illustrated by coloured figures of the new or little-known species. It will be in the recollection of some of our readers that Mr. Jesse was selected by the Zoological Society, at the request of the Treasury, to accompany the Abyssinian expedition as zoologist, and that the society undertook the task of bringing the results of his investigations before the public. Dr. W. Peters, of Berlin, has undertaken to prepare a memoir upon some of the rarer mammalia obtained by Mr. Jesse during the expedition, which will likewise appear in the Transactions. Mr. W. T. Blanford, who was sent out by the Indian Government as geologist to the expedition, is preparing a separate work upon his discoveries, which will be published by Messrs. Macmillan.

AT its last meeting (January 24), the Academy of Sciences elected a new correspondent for the Physical section in the place of the late Professor Forbes. M. Kirchhoff, who was the successful candidate, obtained forty votes; Mr. Lloyd and Sir William Thomson received one vote each.—A committee of the three sections of Astronomy, Geometry, and Navigation selected the following candidates for the vacancy in the *Bureau des Longitudes*:—1. M. de la Roche Poncié; 2. M. Gaussin.

It is no secret that the present régime at the Observatory of Paris has been rather more autocratic than could be patiently endured, even in a country subjected to eighteen years of personal government. Matters have at length reached a crisis, and the Minister of Public Instruction is placed in the awkward position of having to dismiss from the public service one of the most eminent of modern astronomers, or accept the resignation of the whole of the rest of the staff of the Observatory.

THE chair of Chemistry at the University of Tübingen has been offered to Prof. Fittig.

WE regret to have to announce the death of a naturalist of great promise, Dr. Wilhelm Keferstein, Ordinary Professor of Zoology and Comparative Anatomy in the University of Göttingen. He died on the 25th ult., at the early age of 37.

THOSE of our readers who are acquainted with the grand series of ethnographical photographs contained in the four volumes already published of the work entitled the "People of India," will be glad to hear that four more instalments completing the volume are now in progress. The publishers are Messrs. W. H. Allen and Co., of Waterloo Place.

M. SCHARARIK, Professor of Chemistry in the Polytechnic Institute of Bohemia, writing on the 15th ult. to the Bohemian newspaper *Politik*, announces the discovery of a diamond in a

granite quarry in the Daschkowitz estate of Count Schönborn, about eight miles north-west of Prague. The stone weighs 57 milligrams, is of a light yellow colour, and nearly cubical in shape, the edges and corners being slightly rounded. In hardness it equals the East Indian, and exceeds the Brazilian diamonds. After the careful examination which the stone has been subjected to, by Prof. Schafarik, there can be little doubt of its genuineness; but that simple fact will hardly justify us in believing that a diamond has really been found associated with basalt and other minerals of plutonic origin, seeing that the beds which, in other parts of the world, have yielded this precious stone, are all sedimentary deposits. The Daschkowitz diamond had confessedly passed through the hands of a lapidary (who was unable to polish it on account of its hardness) before it reached M. Schafarik, and it would be reasonable, for the present, to suppose that an East India diamond had by some accident become mixed up with the various Bohemian stones sent to the lapidary. It has been suggested in Bohemia that the Daschkowitz diamond is nothing but zircon; but the stone does not agree with that mineral, either in specific gravity or in hardness. To those of our readers who are interested in the diamond discoveries in the Cape Colony we may commend an article "On the Diamond Regions of South Africa" in the *Field* newspaper of the 22nd ult.

IN a recent number of *NATURE* we gave an account of some experiments by Lenz on the occlusion of hydrogen by electro-deposited iron. It will be remembered that in the discussion that followed the reading of M. de Jacobi's paper before the British Association at Exeter, Mr. W. Chandler Roberts stated that electro-type iron occluded at least twenty times its volume of hydrogen. The extraction of the gas was followed by a contraction of the metal. This Mr. Roberts considered important, from its connection with the behaviour of Palladium under similar conditions.

THE last bulletin of the Association Scientifique de France publishes three accounts of shocks of earthquakes at Marseilles and Toulon on the morning of the 18th ult. M. Stephan, of Marseilles, speaks of a smart shock at 2.50 A.M., the direction of the oscillation being from north to south, and lasting three seconds. Another slight shock, having the same direction, was noted by him at 3.5 A.M. M. Ferrier, of Marseilles, observed prolonged oscillations at 2.45 A.M. According to him, there were twenty or twenty-five oscillations from south-west to north-east, the intensity of the oscillations being all equal, and the duration of each one-third of a second. M. Zurchen, writing from Toulon, mentions two violent shocks at 3.7 A.M. There was an interval of two seconds between them. The oscillations appeared to be from north to south.

IN the matter of sewage, as in so many other particulars, the metropolis allows itself to be outdone by provincial towns. Leamington, for example, has had its sewage examined by Dr. Letheby; one sample after it had passed the charcoal filter, the other before being subjected to that process, although it had undergone chemical influences. In one of these, Dr. Letheby found only 8.40 grains of organic matter (in solution), and in the other, only 9.40 grains; whereas, ordinary London sewage contains 15.08 grains. Again, of mineral or organic matters in suspension, the two Leamington samples yielded none whatever, but on the other hand, the London sewage contained 22.04 grains of mineral, and 16.11 grains of organic matters in suspension. Now, why is there this contrast? And yet nearly all the towns of the Thames valley are under strict orders from the conservators to discontinue draining into the river at a given time.

ACCORDING to the *Avenir* of Auch, 130 tumuli, one of them containing a hundred skeletons, have just been discovered in the *landes* of Ossun.

PROF. R. S. BALL will commence a series of twenty lectures on Mechanics, in the Royal College of Science, Dublin, on the 7th of February. It is expected that this course will be found useful to artisans, as well as to students commencing the study of mechanics.

THE Natural History Museum of the Royal Dublin Society has been open for the last few months on one evening in each week to the public. The success that has attended this experiment has been something quite unexpected. The artisan class have flocked into the Museum in such numbers as to inconveniently fill it; the building, which can scarcely accommodate 2,000, being on at least one evening overcrowded with upwards of 3,000. In the meanwhile, the Department of Science and Art is greatly to blame in not increasing the number of porters, whose duty it is to regulate the movements of this great crowd as it circulates up staircases not four feet wide, and along the narrow slender galleries. If we except one porter, who acts as "turnstile" (counting the number of visitors), and another who takes the pennies for sticks and umbrellas, there are not *three* porters to do the duty of a dozen. The success of the experiment ought not to be endangered for the sake of a little expense.

ON Saturday last M. Murez resumed his lectures at the College of France, on the mechanism involved in the flight of birds. His lectures of last year on this subject were published in the *Revue des Cours Scientifiques*.

MR. HULL's paper read last week at the Royal Society has a value beyond that of recording the temperature of the strata through which the shaft of a coal-mine was sunk near Wigan. A mine 808 yards deep, nearly half-a-mile, is the deepest in the world, penetrates the "crust" of the globe farther than any other mine, and so has an especial interest for those who concern themselves about our supplies of coal. Geologists have told us that if we dig down through the "old red" we shall find coal-beds of greater extent than those which we have worked so profitably for the last two hundred years. This, however, did not comfort those uneasy people who looked forward to the exhaustion of coal; for the "old red" is so thick, it would never pay to raise coal from such a depth! And here the Rose Bridge Colliery, near Wigan, above referred to, becomes of especial importance. It may be regarded as an experiment towards a solution of the question of very deep mining. Already the proprietor finds that the cost of "getting" the coal is greater than when the mine was but 600 yards deep. This is the natural consequence of increase of temperature and increase of pressure. The temperature of the coal at the bottom of the mine, as stated in Mr. Hull's paper, is ninety-three degrees and a half! How long will the timber props last in such a temperature and under such a pressure as they have to bear? If the mine yields a profit under such circumstances, then some enterprising coalowner may be tempted to go deeper.

WE learn from the *Athenaeum* that the sixth and concluding part of the first volume of annals of the Public Museum of Buenos Ayres has been issued, and that the work still bears the name of Dr. Burmeister as editor. The papers contained in this part, which is handsomely illustrated like its predecessors, are as follows:—"Descripcion de Cuatro Especies de Delfines de la Costa Argentina," and "Catologo de los Mamiferos Argentinos con los del Museo Público."

THE election of the new Council (Commission Centrale) of the French Geographical Society took place on the 7th ultimo with the following result:—President, M. de Quartrefages; Vice-Presidents, MM. d'Arvezac and E. Cortumbert; General Secretary, M. Mannoire; Assistant Secretaries, MM. R. Cortambert and C. Delamarre.